2013

Dakota

Norman K. Risjord

DAKOTA

DAKOTA

The Story of the Northern Plains

NORMAN K. RISJORD

UNIVERSITY OF NEBRASKA PRESS LINCOLN & LONDON

Manufactured in the United States of America.

Library of Congress Cataloging-in-Publication Data
Risjord, Norman K.
Dakota: the story of the northern plains /
Norman K. Risjord.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-8032-6929-3 (paper: alk. paper)
1. North Dakota—History. 2. South Dakota—History.
I. Title.
F636.R57 2012
978.3—dc23 2012026937

Set in Swift EF.

For Connie
With thanks for the memories

CONTENTS

ILLUSTRATIONS

MAPS

PREFACE

Ventures into local history, together with some volunteer teaching, have been my hobby in retirement. After I published popular histories of Wisconsin, Minnesota, and Lake Superior, a move into the Dakotas seemed a logical step. Where Wisconsin and Minnesota were familiar territory, however, I had to start afresh in exploring the culture and landscape of the northern plains, but it was a very rewarding and enjoyable experience. My wife, Connie, and I traveled extensively through the Dakotas and were stunned by the grandeur of the Badlands, awed by the "Needles" of the Black Hills, and inspired by the mystic beauty of Spirit Lake. We walked the streets and visited the museums of such cultural gems as Yankton, Deadwood, Spearfish, Medora, Fort Totten, and Pembina.

Since this is a book of synthesis directed at a general audience, my research leaned heavily on the work of the many fine scholars in the universities and historical societies of the northern plains. My debt to some of these—though by no means all—is acknowledged in the Selected Reading section at the end of the book. I also owe a hearty thanks to Connie, my traveling companion, adroit editor, and fearless critic.

DAKOTA

CHAPTER ONE

A Sea of Wind-Blown Grass

Drawing his coat close around him and clutching his hat, the visitor asked the North Dakota ranch hand, "Does the wind blow this way here all the time?"

"No, Mister," answered the cowboy. "It'll maybe blow this way for a week or ten days, and then it'll take a change and blow like hell for a while."

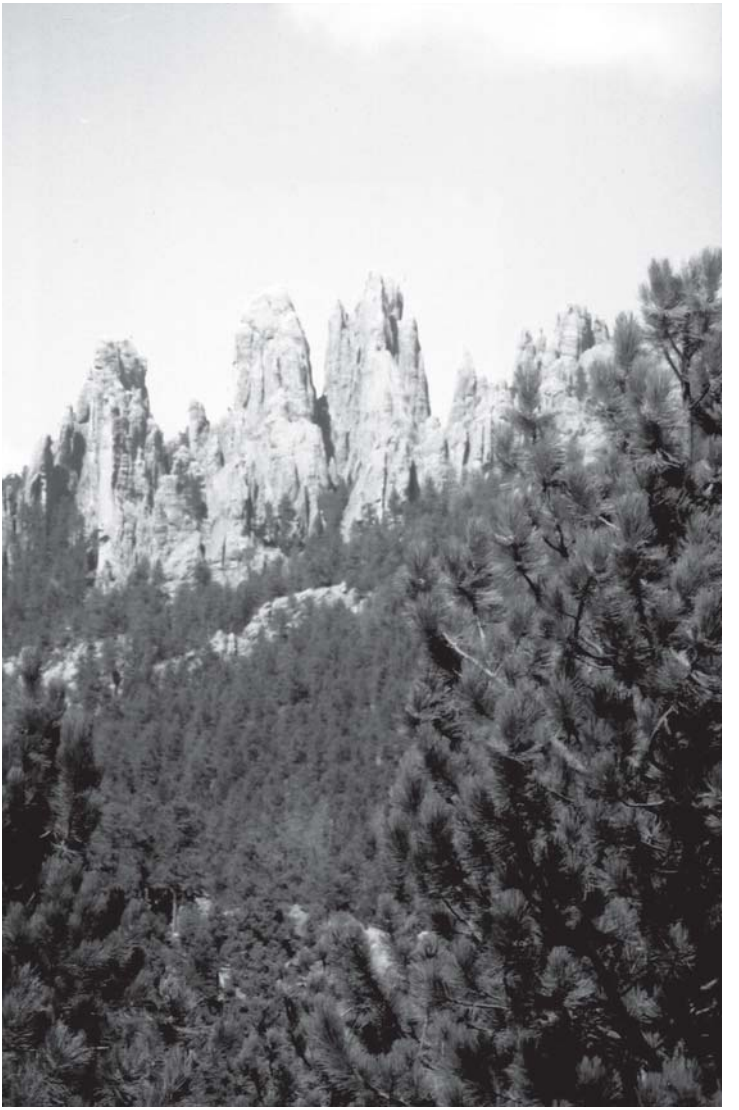
Wind. It built the Great Plains. And then it scoured and shaped the land it had wrought. Wind and water. A hundred million years ago the granite-like craton that was to become North America was divided by an arm of the sea. The oceans had risen worldwide due to underwater mountain building. On the eastern (Illinois, Iowa, Kansas, Oklahoma) and western (Montana, Wyoming, Colorado) shores of this midcontinent sea were subtropical forests where dinosaurs roamed. The rotting detritus of these forests laid down beds of coal, oil, and natural gas. On the seabed that would become the plains, layer upon layer of sand and silt accumulated, brought by the westerly winds from a rising mountain chain on the western edge of the North American

craton (the Sierra Nevada range today). Over millions of years the sea-bottom sand and mud would harden into sandstone and shale.

Beginning about 70 million years ago, a collision of tectonic plates on the western edge of North America started a new era of mountain building—the Rocky Mountain ranges of Idaho, Wyoming, and Colorado. Wind-driven sand, dust, and volcanic ash from this upheaval settled in the midcontinent seabed, covering the earlier sandstone and limestone. Tectonic shudders from this process created lesser ranges to the east—the Big Horn Mountains and the Black Hills. In the Black Hills the granite-like bedrock thrust up through beds of limestone, pushing the sedimentary rock aside and opening crevices. Over the millions of years since that time acidic groundwater seeped into the cracks and crevices, dissolved the limestone, and formed the gigantic caves that grace the Black Hills today.

Just as this era of mountain building came to an end, about 40 million years ago, worldwide sea levels began to fall, the plains emerged from the water, and North America approached the configuration (except for late-forming Florida and the Gulf Coast) that we know today.

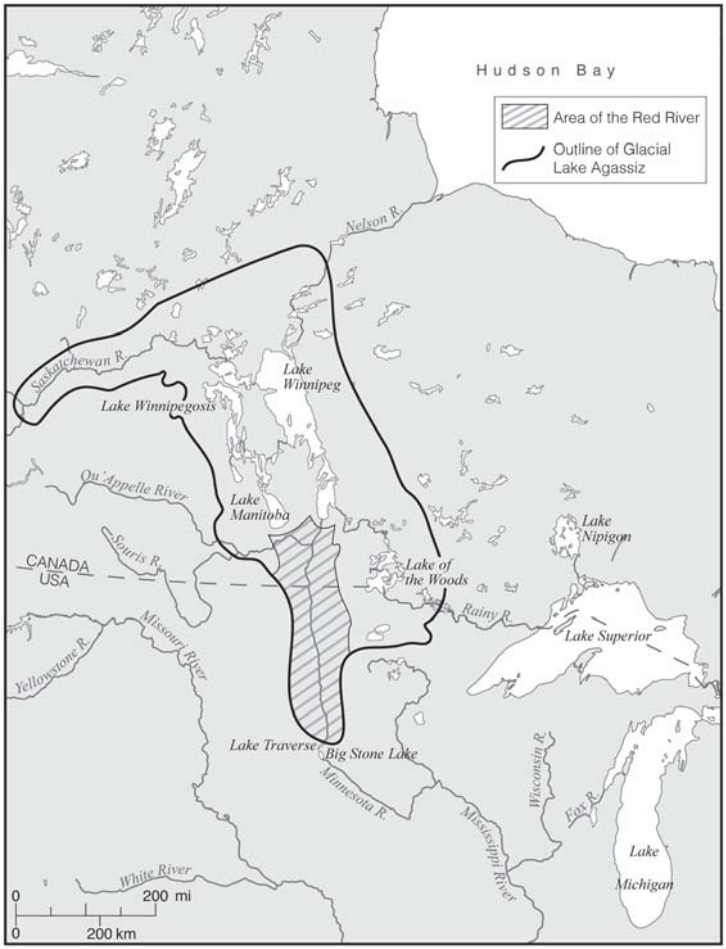
Wind and water nevertheless continued their artwork. Heavy rains eroded the newborn Rockies, and rivers—the Missouri, Yellowstone, Grand, Cheyenne, and White in the Dakotas—carried new sediments onto the plains. The westerly winds added finer particles of dust and sand, but they also eroded what was already there. Wind erosion produced the drop-off that runs through the middle of the Dakotas, separating the eastern prairie plains from the high plains. In parts of the high plains the winds selectively eroded the fine silt and soft sandstone from earlier rock formations, whittling the spectacular multicolored pinnacles that make up the Badlands today.



1. “The Needles” in the Black Hills. Photo by author.

In the past 2 million years four, or perhaps five, glaciers descended from the Arctic to cover part of the Northern Hemisphere. The last of these—often called the Wisconsin Glacier because of its dramatic impact on the Badger State—crept onto the plains about twenty-five thousand years ago. While scientists are unsure of the cause of the Ice Age, they do know that glaciers fed on themselves. The ice reflected the sun's rays back into space, further cooling the earth and bringing on longer winters. As the snow and ice piled up, reaching more than a mile in thickness at their origin around Hudson Bay, the pressure melted the ice at the bottom, and the mass oozed southward. By the time it reached the present-day Great Lakes, the wall of ice was creeping forward at the rate of several hundred feet a year.

A western branch of the ice sheet (the Red River–Des Moines lobe) pushed into the Dakotas before coming to a halt some fourteen thousand years ago. Its terminal moraine closely tracks the Missouri River today. The Missouri, which originally followed the James River Valley through the Dakotas, carved a new bed for itself along the outer edge of the moraine. The earth, for reasons still unclear, began warming about that time, and the ice went into retreat. By twelve thousand years ago it had left the Dakotas, and within another thousand years the melting ice had created a gigantic freshwater lake in Canada (Lake Agassiz to geologists), the remnants of which today are the Lake of the Woods and Lake Winnipeg. An arm of Lake Agassiz occupied the valley of the Red River, and for several centuries it emptied southward along the Minnesota River to the Mississippi. After Lake Superior became free of ice, about five thousand years ago, Lake Agassiz began draining eastward, and a glacial moraine separated the northward-flowing Red River from the Minnesota River.



Map 1. Glacial Lake Agassiz.

The Sea of Grass

When the glacier was at its height, the plains south and west of the terminal moraine were a tundra of lichens and moss. As the climate warmed and the glacier retreated, a spruce forest advanced northward, followed by a variety of western firs, remnants of which cover the Black Hills today. Around nine thousand years ago hardwoods and grassy parks moved in among the firs, and immense herbivores—the grass-eating mammoth and brush-eating mastodon—followed the food supply. Within another thousand years the climate of the plains became warmer and drier—approximately the climate conditions of the present—and grasslands replaced the forests. In a relatively dry climate with hot summers and intensely cold winters grass fares better than trees. The reason is that most of the biomass of grass is in the roots, whereas that of trees is principally in the trunk and crown, exposed to the elements.

Rainfall determined the types of grasses that covered the plains. Because the Rocky Mountains wrung most of the moisture from the winds approaching the continent from the Pacific, the high plains—the land west of the Missouri River and the 98th meridian—received only about eighteen inches of moisture a year. This region could sustain only a few species of short grasses, commonly known as buffalo grass because it supported immense herds of buffalo when the first white explorers reached the plains. In the prairie plains, stretching south and east from the Red and Big Sioux Rivers to the Mississippi and beyond, annual rainfall averaged about thirty inches because of wet, cyclonic winds from the Gulf of Mexico. This region sustained a big bluestem, or tall-grass, prairie. The transition region between the two climatic zones—roughly the James River Valley in

2. The James River Valley, a mixture of grasses and trees.
Photo by author.

the Dakotas—contained a mixture of grasses, with groves of cottonwood and elm near the streambeds. The prairie plains also supported a wider variety of wildlife than the high plains: white-tailed deer, elk, bear, and antelope in addition to the buffalo.

Also prowling the prairies and hardwood parks were various meat-eating animals—wolves, bears, and cats, large and small. Some had originated in North America. Others had migrated from Asia and Africa when the continents were all joined together several hundred million years ago. The short-faced bear, which evolved in North America, dwarfed the modern grizzly and was the largest meat-eating animal ever to have trod the earth. Equally fearsome was an American lion, twice the size and weight of the modern African lion. The saber-toothed cat, which used its extended canines to disembowel its prey, owed its ancestry to Africa or Asia

and was an American relic, its ancestors in the Old World having become extinct several thousand years earlier.

Many of these huge animals became extinct in North and South America within a few thousand years after the arrival of human hunters. Skilled hunters may have contributed to the die-off, but it seems unlikely that humans alone were responsible. On foot and armed only with stone-tipped spears, groups of them might have been able to overcome a large animal mired in a swamp, but large-scale kills seem improbable. And many of the species that disappeared from the earth—the short-faced bear, the saber-toothed cat, or the giant sloth—would have been either too dangerous to hunt or virtually inedible. Since the extinction was worldwide, human predation could not have been more than a minor factor. Another possibility was the dramatic climate change that made possible the movement of humans from Siberia to North America.

The First Humans

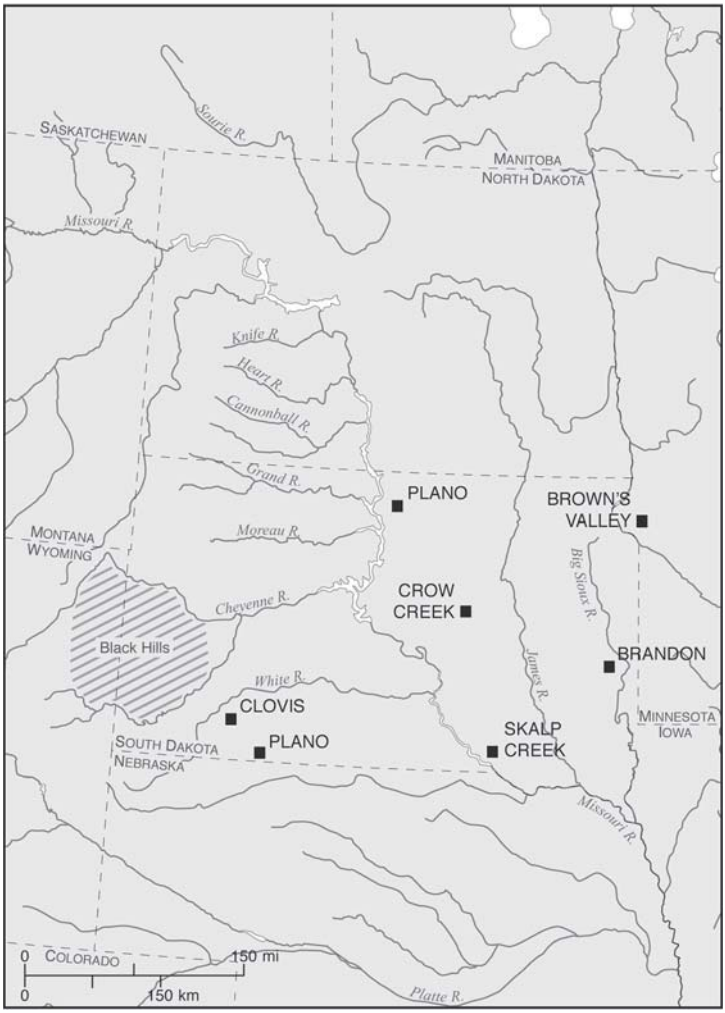
The earliest reliable evidence of humans in North America was first uncovered at a site near the village of Clovis, New Mexico, dated at about 12,000 BC. Their hunting instrument was a spear tipped with a point finely chiseled out of flint or chert. It was leaf-shaped, with a shallow groove or "flute" on each side, so that it could be firmly affixed to a wooden shaft. At Clovis, New Mexico, these points were found alongside the bones of mammoth, camel, and horse, all of which would later become extinct in North America (the camel ancestor survived in the form of the llama in South America, and the horse was reintroduced by Spanish ranchers in the Southwest).

The glaciers at their height had tied up so much of the world's water that sea levels dropped by as much as three

hundred feet. The drop in sea level opened a thousand-mile-wide land bridge between Siberia and Alaska. Giant herbivores that were abundant in Asia—such as mammoths and mastodons—were probably the first to cross. The frozen tundra of Siberia discouraged Asian peoples from moving north of the 54th parallel until the climate began to warm about eighteen thousand years ago. Although Clovis spear points have been found in many kill sites (or hunting camps) in North America, no Clovis points have been found in Siberia. The Clovis spearhead seems to have been an early New World invention by the people whom archaeologists call Paleo-Indians.

One of the oldest kill sites in the plains, dated to about 9000 BC, is located in the Badlands of South Dakota. In addition to Clovis points archaeologists have found the partial skeleton of a butchered mammoth. Pollen and snail shells at the site indicate that the mammoth was killed in a swamp, either driven there by hunters or trapped while browsing on the lush vegetation.

Another type of spear point, called Plano, dated to about 8000 BC, has been found at various sites in western North America. Plano spearheads are long, leaf-shaped, and unfluted. The mammoth and mastodon had virtually disappeared by that time, and the modern bison, or buffalo, seems to have been the main target of hunters. Kill sites containing large numbers of buffalo bones indicate that Plano people hunted in groups and drove the animals over cliffs or into box canyons. A Plano site on the Missouri River, opposite the mouth of the Grand River, was apparently occupied off and on from 8000 BC until around the time of Christ. In addition to spear points, excavators found stone knives, scrapers, and perforators, indicating that the Paleo-Indians were using buffalo hides for clothing and perhaps housing.



Map 2. Paleo-Indian sites, 9000 BC–AD 1500.

Like the later Plains Indians, the Plano folk wandered with the buffalo herds, and most of their sites have meager remains that suggest only temporary occupancy. A site near Hot Springs, on the edge of the South Dakota Badlands, dated to about 7000 BC, yielded grinding stones in addition to the usual slaughtering tools, suggesting that the Plano people may have found some sort of edible grass seed. We know nothing about the physical characteristics of the Plano people. The oldest human remains in the region, the skull of a young adult male and tentatively dated at 6500 BC, was uncovered at Browns Valley, Minnesota, near the headwaters of the Minnesota River.

By the time of the birth of Christ, the Paleo-Indians of the plains had greatly improved their hunting tactics and their weapons. Their prime quarry was still the buffalo and the antelope. However, instead of trying to stampede a herd over a cliff, they now preplanned the kill site and constructed a log corral at the foot of a drop-off or steep hill. The terrain was chosen so as to hide the corral from the animals until it was too late to escape the trap. Groups of hunters using brush as camouflage fanned out from the top of the hill, forming a large funnel that channeled the animals into the corral, where they were clubbed or speared. Hunters had also improved the range of a thrown spear with the addition of an atlati, a rod attached to the end of the spear with a thong that gave added leverage (similar to the human elbow) to the throw. At some point during this period, perhaps earlier, the Paleo-Indians domesticated wolves or coyotes for use as pack animals. As late as the eighteenth century white fur traders observed that Indian dogs were semiwild and, instead of barking, howled like coyotes.

Another development during this time was the appearance of pottery. Earlier peoples had used animal skins for

carrying water and cooking. They heated water by dumping fiery hot stones into the skins. Sometime around 800 BC, people learned to mix clay with grit (fine sand or ground-up clam shells) to make it workable. They then shaped it into a hollow cone using the heels of their hands or a wooden paddle and fired it in a charcoal oven. Because the earliest pots were cone-shaped at the bottom, they were probably placed in holes in the ground before being filled with water or berries. Decorations were quite primitive, usually markings about the mouth of the piece made with a stick or piece of bone.

The Woodland Tradition

From the time of Christ to about AD 1200, a succession of cultures, apparently borrowing pottery and housing styles from Eastern Woodland peoples, occupied the Missouri Valley of the Dakotas. From about 100 BC to AD 900 a rather sophisticated culture, known as Hopewell, thrived in the Ohio River Valley. The Hopewell people lived in semipermanent villages, grew corn and squash in cultivated fields, and obtained food from the rivers as often as from the forest. The Hopewells had trading relationships with people from the Great Lakes to the Gulf of Mexico, and they established important colonial settlements at Cahokia on the Mississippi River and at the big bend (present-day Kansas City) of the Missouri River. The Hopewell people developed a well-crafted and finely decorated pottery, and they buried their dead in ceremonial mounds.

The Woodland Culture of "Kansas City Hopewell" followed the Missouri River into the northern plains while Europe was undergoing the early Middle Ages, where bows and arrows had been in use for several centuries. In America the bow and arrow replaced the atlatl spear around AD 500.

Since this was far too late in time for communication across the Alaskan land bridge, they must have been independently invented in the Old and New Worlds. The people became more sedentary, with villages typically sited on the edge of rivers.

A site at Scalp Creek in the Missouri River floodplain (near the South Dakota–Nebraska border) was occupied off and on between AD 200 and 800. Although there is no evidence of corn-growing at the site, the people gathered wild plants and milled grass seeds. They hunted deer, elk, and rabbits, in addition to the buffalo, and they stored food in underground pits. Their pottery was globular, rather than conical, and decorated with rope impressions, similar to those of the Hopewell Culture. Near the village, archaeologists found a burial mound containing six skeletons in a flexed position, with knees drawn up to the chest, a position often used in burials in the Eastern Woodland tradition. Burial offerings—suggesting a belief in an afterlife—included knives, scrapers, bone perforators, and a stone hammer painted with red ochre.

From about AD 800 to 1250 North America and Europe experienced a relatively benign climate—warmer and wetter than it had been in the previous millennia. The people of the middle Missouri Valley began to grow corn, squash, and beans, and farm crops became as important in their diet as wild fruit and game. They settled in semipermanent villages along the beds of the Big Sioux, James, and Missouri Rivers. A better diet and less severe winters allowed a dramatic increase in population. More than thirty middle Missouri village sites, containing from twenty to ninety houses, have been uncovered in South Dakota alone.

An example of a middle Missouri village is the Brandon Site, which is situated on a flat-topped ridge some eighty-five

feet above the Big Sioux River, just north of the modern city of Sioux Falls. The village contained about thirty rectangular houses, each about thirty-five by twenty feet in size—enough to accommodate an extended family. The houses were dug into the ground three or four feet, with the tramped bottom of the pit serving as floor. The superstructure of the lodge was a framework of heavy poles bound together by ropes made of roots or stringy bark. The walls consisted of small poles covered with either bark (where wood was plentiful) or buffalo hides. The bluff protected the village from attack on the river side, and a shallow ditch served as defense works on the exposed side. The casual nature of the defense works suggests the times were generally peaceful around AD 1000.

Lodges in most middle Missouri villages were arranged side by side in more or less regular rows. At intermittent locations in the village were sizable pits for storing corn and other vegetables during the winter. When emptied, the pits became middens for garbage and other refuse, such as bones and clam shells. Some of the villages had a central plaza, which may have been used for religious ceremonies. As we shall see in the next chapter, the development of shamanistic rituals, associated with the planting time or harvest, was one of the customs that helped define the emergence of modern Indian tribes in the plains.

In Europe in the late Middle Ages the relatively mild climate and flourishing agriculture provided the wealth and leisure time for the construction of the great Gothic cathedrals, and in the North Atlantic it allowed the Norsemen to colonize Greenland and even establish a momentary foothold on Newfoundland. But in the heartland of North America beneficent weather had its down side, at least for the Paleo-Indian population of the middle Missouri. To the south

and east of their villages (i.e., in southern Wisconsin, Minnesota, and Iowa) lay the Oneota Culture, a Woodland people whose community structure and pottery were derived from the earlier Hopewell Culture. They produced abundant crops on fertile prairie lands, and their population exploded around AD 1100. We can trace their movements northward along the Missouri and Big Sioux rivers by their use of red pipestone quarried in southwestern Minnesota. An indication that the Oneota expansion was generally aggressive is the appearance (ca. AD 1200) of more elaborate defense works in the villages of the middle Missouri people: deeper ditches and log palisades. In addition, there is evidence of a retreat of middle Missouri people northward into present-day North Dakota.

Adding to the stress was another long-term climate change, beginning about AD 1250, of colder and drier conditions (lasting until about 1850; climatologists have titled it the "Little Ice Age"). In the North Atlantic the inclement weather forced the Norsemen to abandon their settlements in Greenland, and in the northern plains poor harvests led to malnutrition and conflict over scarce resources and arable land. A massacre at Crow Creek in the James River Valley some time around 1300 affords particularly gruesome evidence of conflict. When first occupied by a middle Missouri people, the village was unfortified. Aware of impending danger, they began building a fortification ditch 1,250 feet long. They were attacked, perhaps before the defensive fortification was completed, and more than five hundred people were killed. The assailants scalped the victims and mutilated them by cutting off hands, feet, and other body parts. At some later time the remains were gathered up, either by the victors or by survivors of the massacre, and dumped into one end of the fortification ditch, where they

were covered with clay brought up from the creek bed. Archaeological excavation of the bones revealed much about the living conditions of the time. The skeletons showed evidence of nutritional deficiency, especially of protein and iron. They also revealed that conflict had been ongoing for some time. Some of the bones contained imbedded arrow points that had been grown over. Most of the lodges had been burned, which suggests a violent raid rather than aggressive colonization.

The fighting seems to have subsided by about 1500. Villages on the upper Missouri and Red River (present-day North Dakota) had only casual fortifications or none at all. There is also evidence of an annual trading mart about this time on the James River, where obsidian from the Rocky Mountains and ornamental shells from the Great Lakes were found. When the first Europeans arrived, they saw the trade mart being carried on by the Dakota Indians. By that time—the early eighteenth century—modern Indian tribes had evolved from a blend of the Oneota Culture and the Middle Missouri Tradition, with some accretion from the Eastern Woodlands.